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SEXUAL FUNCTIONING AFTER SEX REASSIGNMENT SURGERY

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INTRODUCTION & OBJECTIVES: Although good sexual functioning is universally considered as a part of a healthy mental life few studies have been performed to investigate what happens sexually to transsexuals after SRS.

MATERIAL & METHODS: Between 1987 and 2001, 107 transsexuals (63 M-to-F and 44 F-to-M) from the Flemish speaking part of Belgium underwent SRS in our Clinic. All M-to-F had a vaginoplasty, near all F-to-M (40) had a functional phalloplasty. In order to perform a long-term follow-up evaluation, all these patients were contacted. A delay of at least one year after SRS was respected. 62 persons (58%) agreed to cooperate for this multidisciplinary study. The mean follow-up period was 5.65 years. For the sexual part of our research, we invited 54 persons, who were interviewed on a face to face basis. They completed also a sexual functioning questionnaire and a regret list.

RESULTS: More M-to-F (59%) than F-to-M transsexuals (43%) reached a stable sexual relationship postoperatively. In most cases the partners were very supportive. Although the expectations about SRS were reached on a emotional and social level, the outcome was less convincing on the physical and sexual level. 80% of all transsexuals (M-to-F as well as M-to-F) expressed their satisfaction with their sexual life, when they had a partner. 20% of all transsexuals were definitely not satisfied about their sex life in general, although a large number of transsexuals (80%) admitted that their sexuality had improved after SRS. We could notice a correlation between a good sex life and an overall feeling of satisfaction and happiness.
After genital operation the F-to-M (19/23) masturbate significantly more than their M-to-F counterparts and also more than prior to SRS. All F-to-M were orgastic when they masturbate, only 17/23 M-to-F reached orgasm regularly. The frequency of reaching orgasm was very similar when the transsexuals had sexual intercourse. The orgastic feelings differed postsurgical for both groups: more powerful and shorter for the F-to-M's, more intense, smoother and longer for the M-to-F's.
We compared the F-to-M patients who had an erection prothesis with those without erection prothesis on several sexual items: patients with prothesis have more sexual partners, think of sex as a more important aspect of their life, are often preoccupied with sex, experience a large improvement of their sex life compared to earlier. Nevertheless, they both have the same feeling of satisfaction with their sex life. Transsexuals who have a prothesis are often confronted with pain during intercourse.

CONCLUSIONS: Although most of the patients are satisfied with their sex life after Sex Reassignment Surgery it is clear that the meaning and the importance of sexuality undergoes an evolution during the gender reassignment process.

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DEVELOPMENT AND CHARACTERISATION OF TISSUE-ENGINEERED BUCCAL MUCOSA FOR URETHROPLASTY

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INTRODUCTION & OBJECTIVES: Oral mucosa and skin grafts both require harvesting of tissue from a second surgical site resulting in an increase in patient morbidity. For substituting lengthy strictures there may be paucity of tissue and for lichen sclerosis related strictures use of skin is relatively contraindicated. In recent times buccal mucosa has become the most favoured tissue. This report outlines successful culture of oral mucosa utilising autologous cells for urethroplasty.

MATERIAL & METHODS: 0.5 cm oral mucosa biopsies were enzymatically treated to separate the epidermis from the dermis; keratinocytes were cultured from the epidermis and the fibroblasts from the dermis. These were expanded separately up to passage 4 using serum-containing media. Cells were then seeded on acellular sterilised de-epidermised human dermis (DED) and cultured at an air-liquid interface (ALI) or submerged for 2 weeks. This tissue-engineered buccal mucosa (TE buccal mucosa) was stained with haematoxylin and eosin and characterisation was undertaken using cytokeratins 5, 7, 10 and 19.

RESULTS: TE buccal mucosa closely resembled native buccal mucosa on histological assessment; it had formed 10-14 layer thick epithelium after 2 weeks of culture. Histologically models cultured at ALI were superior to those cultured submerged. Better horizontal migration of keratinocytes was observed when culturing under submerged conditions. Cytokeratin markers stained in a similar pattern as for native oral mucosa.

CONCLUSIONS: We have for the first time successfully cultured buccal mucosa suitable for substitution urethroplasty that has a well-defined epidermis on a terminally sterilised dermal carrier containing oral fibroblasts. It is similar to native oral mucosa both histologically and in terms of cytokeratin staining. Using this methodology we are able to produce up to two 2x10 cm patches of TE buccal mucosa in 5-6 weeks time.

P19 BPH: MEDICAL THERAPY II
Friday, 26 March, 12.15-13.45, Hall B/ Red level

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SMALL INTESTINE SUBMUCOSA (SURGISIS®) AS BIOSCAFFOLD FOR BLADDER CELL CULTURE: EXPERIMENTAL STUDY

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INTRODUCTION & OBJECTIVES: To investigate the feasibility to perform primary urothelial cell culture using porcine small-intestine submucosa as a delivery scaffold both in vitro and after in vivo implantation in a rabbit model.

MATERIAL & METHODS: Bladder mucosa samples were obtained from a group of eight male rabbits. The mucosa was cut into fragments and placed on small-intestine submucosa matrices for selective urothelial cell culture. After complete in vitro epithelization the matrices were shaped as tubes and placed into the subcutaneous tissue and subdartos of donor rabbits. The pattern of cell growth and delivery was evaluated on retrieved grafts by histology and immunostaining at the end of the in vitro phase and 5, 10 and 20 days after implantation.

RESULTS: Histological and immunohistochemical analysis of the in vitro primary culture showed the acellular matrices covered with a thin uninterrupted monolayer of urothelial cells. The implants examined on the fifth day maintained the epithelial configuration of the cultured grafts in all samples retrieved. On the tenth day the urothelium showed increased thickness taking on a bilayer configuration. At twenty days all grafts presented the transitional cells arranged in a double layer closely resembling the natural urothelium. The immunostaining pattern displayed the maintenance of a pure urothelial cell phenotype. No differences in epithelium growth and delivery were noted between the two sites of implantation. Five days after implantation histological analysis of small-intestine submucosa showed a medium degree tissue reaction with acute inflammatory cells. Angiogenesis was demonstrated by the development of several new vessels inside the matrix. After twenty days small-intestine submucosa was gradually replaced with host tissue.

CONCLUSIONS: The small-intestine submucosa (Surgisis®) proved to function as a delivery vehicle of autologous urothelial cells culture in vitro. After in vivo implantation the bioscaffold maintained viability and growth of surrounding cells until its degradation.

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LONG-TERM DUTASTERIDE THERAPY RESULTS IN CONTINUED IMPROVEMENTS IN SYMPTOMS AND PEAK URINARY FLOW IN MEN WITH SYMPTOMATIC BENIGN PROSTATIC HYPERPLASIA

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INTRODUCTION & OBJECTIVES: Dutasteride, a dual inhibitor of Type 1 and Type 2 5α-reductase, improves symptoms and urinary flow, and reduces prostate volume, the risk of acute urinary retention (AUR) and the need for BPH-related surgery. This open-label extension study provides 4 years of data to support the long-term efficacy and safety of dutasteride.

MATERIAL & METHODS: Patients who completed 2 years of randomised therapy with dutasteride (0.5 mg) or placebo were eligible for a 2-year optional open-label extension study. Entry criteria for the double-blind portion included age ≥50 years; prostate volume ≥30 cc; AUA-SI score ≥12; Q_{max}≤15 mL/sec; and PSA ≥1.5 ng/mL and <10 ng/mL. Efficacy measures were recorded at multiple time points. Results are presented from the open-label intent-to-treat population.

RESULTS: 4325 patients were randomised to dutasteride or placebo; 2340 patients received open-label dutasteride (1152 placebo/dutasteride [P/D], 1188 dutasteride/dutasteride [D/D]). Mean AUA-SI score and Q_{max} improved continuously in the D/D group over the 4-year study period. Changes from Month 24 to 48 were statistically significant ($p<0.001$ for symptoms, $p<0.01$ for Q_{max}). The P/D group treated with dutasteride between 24–48 months experienced improvements in AUA-SI and Q_{max}, but the improvements were not as great as patients receiving dutasteride for 4 years ($p<0.001$ for symptoms, $p=0.042$ for Q_{max}).

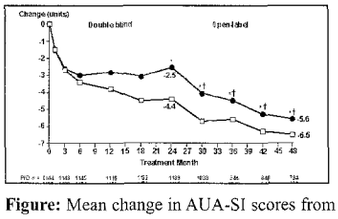

Figure: Mean change in AUA-SI scores from baseline over 48 months

CONCLUSIONS: Long-term (4-year) treatment with dutasteride results in continuing improvements in symptoms and peak urinary flow. Earlier initiation of dutasteride therapy results in greater improvements from baseline at 4 years in symptoms and peak urinary flow compared with patients who were initiated on dutasteride therapy at 2 years.